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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,604

04/29/2005

Tomitaro Hara

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29175 7590 12/14/2007  
BELL, BOYD & LLOYD, LLP  
P. O. BOX 1135  
CHICAGO, IL 60690

EXAMINER

NGUYEN, KHANH TUAN

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

12/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,604	<b>Applicant(s)</b> HARA ET AL.	
	<b>Examiner</b> Khanh T. Nguyen	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 18, 19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18, 19, and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Final***

***Response to Amendment***

1. The amendment filed on 10/29/2007 is entered and acknowledged by the Examiner. Claims 18, 19, and 21 are currently pending in the instant application. Claims 1-17, 20, and 22-34 have been cancelled.

2. The rejection of claims 18, 19, and 21 under 35 U.S.C 102(e) and in the alternative under 35 U.S.C 103(a) over Tsuchida et al (JP Pub. 2000-082329) is maintained for the reason set forth in the Office Action mailed on 07/27/2007.

***Withdrawn Rejection***

3. The rejection of claims 18, 19, and 21 under 35 U.S.C 102(b) and in the alternative under 35 U.S.C 103(a) over Goto et al (U.S Pat. 6,794,480) is withdrawn in light of Applicant's amendment and remarks.

***Response to Arguments***

4. Applicant's arguments filed 10/29/2007 have been fully considered but they are not persuasive.

In response to Applicant's remarks filed on 10/29/2007, on page 8, Applicant argues that Tsuchida et al (JP Pub. 2000-082329) failed to teach or suggest the specific

ratio range associated with the number of moles of the second compound and the protoic dissociation group. The Examiner respectfully disagrees with the Applicant's argument.

Applicant should refer to paragraph [0024] wherein Tsuchida et al teach a mixing ratio of the polymer (second compound) containing sulfuric acid radical (protoic dissociation group) ranging from 95/5 to 5/95 by weight ratio (i.e. mole ratio). Tsuchida et al further teach when the sulfuric acid radical content becomes less than 5 the ion conductivity or proton conductivity become difficult to acquire sufficiently.

Applicant also argues that neither Tsuchida et al nor Goto et al teach the second compound includes at least one of N, N-dimethyl formamide. The Examiner respectfully disagrees with the Applicant's argument.

Applicant should refer to paragraph [0006-0007] wherein Tsuchida et al teach a mixture of polar giant-molecule such as polyacrylamide and perfluoro sulfonic acid (Nafion) or perfluoro carboxylic acid (Flemion). The disclosure of polyacrylamide is considered to read on N, N-dimethyl formamide.

Based on the rational above, it is the Examiner's opinion that the reference meets Applicant's claims in their broadest interpretation and the rejection is maintained.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh T. Nguyen whose telephone number is (571) 272-8082. The examiner can normally be reached on Monday-Friday 8:00-5:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

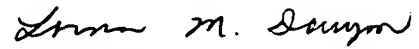
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KTN  
12/08/2007

  
LORNA M. DOUYON  
PRIMARY EXAMINER